

## ABSTRACT

A system is provided for facilitating the imaging of a specimen, such as a laboratory rat, within an imaging machine such as an MRI machine. A sliding, self-centering interconnection is provided between a magnetic positioning and spacing assembly and a specimen positioning and retention assembly. Support and abutment surfaces are provided for facilitating the proper mounting locations of a gradient coil and probe coil within the main magnet coil and for optimally locating a specimen with respect to the main magnet coil and with respect to the gradient and probe coils.